

Dyspepsia Am
Inaugural Dissertation
on
Dyspepsia,

^{submitted}
Addressed to the Provost, Trustees, and
Medical Professors,
of the University of Pennsylvania.
For the degree of
Doctor of Medicine,

By
John T. Boyd
of
New Jersey—

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As the function of nutrition is the tenure by which every animal retains its existence; and on the integrity of the operations of which, health is dependent: So any deviation from its natural and regular order induces disease, and its entire suspension or abolition, as certainly proves fatal.

So important is the perfect animalization of aliment that the digestive organs have long held a high station in Physiological science; and their diseases obtained laborious and ingenious investigation.

The Stomach with the Brain and heart has been denominated the tripod of the system on which rests each individual or agent in the animal economy.

In reflecting on the intercourse and communication between our material and immaterial parts, we are forced to observe, that nature seems to have endued particular portions of our frame, with a more exquisite connection with our mental part; and subjected them to a closer sympathy with our passions and feelings. Among these none perhaps is more eminently distinguished than the digestive organs generally, and the Stomach in particular. — In contemplating this view of the subject;

We are not surprised that Van Helmont should consider the Stomach the seat of the soul. Again when we observe its sympathies, and intimate connections, with almost every part of the body; so that if these are diseased, it shortly becomes implicated in the mischief, and discovers symptoms of derangement; we are forced to acknowledge the propriety of denominating it the Dial-plate of the system.

In some affections and particularly in those of the Brain; the Stomach often is the first in giving the alarm. While the brain is thus deficient in sensibility, and often refuses to give the Physician information that the work of disease has commenced. The Stomach like a faithful sentinel sounds the alarm and leads to an investigation of its cause.

From the importance of the Stomach whose office performs the most necessary operations in the animal economy; whose sympathies bind together in one great circle of feeling; actions and motions both distant and opposite; it becomes an object of moment in all its disease to decide, whether the Stomach is involved in a disease affecting primarily, some different and distant part; or whether the source of the evil is to be searched for in the organ itself. — These the very causes which

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give the stomach an elevated rank among the organs of our body become an impediment to our distinguishing its idiopathic diseases.

But as this discrimination however useful it might be, is perhaps impracticable; since we can never be certain that the stomach alone is affected, or even that it is primarily affected, as general nervous irritation may have preceded the disorder, or may have been caused by it. But as nervous irritability and weakness are not perhaps susceptible of a direct cure by medicine; and as in all these cases the digestive organs are disordered, and form either as a cause or symptom a very formidable part of the disease. It would be more advantageous to omit these medicines which may be supposed to act on the nerves; and direct our attention to such remedies as improve the function of digestion; the operations of which are so much more susceptible of medicinal aid.

This line of practice will appear more plausible from the history of such diseases as are denominated nervous. And by comparing their symptoms with such affections as are decidedly attributable to disorders of the digestive organs; and by observing their almost universally accompanying diseases of these last.

These diseases appear to depend in some instances on a

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natural free disposition; and may be marked in many cases in the first stages of infancy. - The child born of nervous parents (that is to say) parents of weak digestive organs and irritable nervous systems; subject to bilious and spasmodic complaints; will at the breast be very liable to bowel affections, such as cardialgia, flatulency, constipation or diarrhoea, gripes, yellow gum or jaundice; These will be apt to come on from slight causes, as when the milk of the nurse is affected either by her passions, or impropriety of diet; or when anything has entered its food that is difficult of solution in the stomach.

These causes will often operate with such force and effect as to induce convulsions and death.

In these cases the disorder of the digestive organs appears to be the cause of the convulsions; and the extreme irritability which continues until the offending matter in the first passages be corrected or removed and their regular function restored. This will require additional probability; when we reflect that almost all the diseases of infants originate from disorder of the digestive organs.

Many of these diseases evidence their effects on the system by producing eruptions of various descriptions on the skin. In other cases the arterial system will be brought into sympathy with the chylopoietic viscera; or their disorders by reacting on the blood vessels will induce fever. But since the muscular predisposition

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prevails in infancy, and irritability predominates over sensibility; any irritating cause of disease is most usually invited to the nervous system, inducing convulsions.

If we pursue an infant with such a state of its digestive organs, to the period of puberty we will most probably see it affected with Cholera. And if it be a female with Chlorosis and Hysteria.

The Stomach in these cases appears to be the seat of the original disease; and on which these effects seem to depend for their cause; since in proportion as the function of digestion improves, these symptoms disappear.

It is also known that in local injuries from accidents, or operations, the Stomach has appeared to be the first principally affected. Mr. Abernethy has related many cases in support of the opinion, that local irritation affecting the nervous system; may occasion a subsequent derangement of the digestive organs of most momentous nature, and which appears to be the cause of great general disorder of the system. Because an amendment taking place in the state of these viscera, a corresponding amendment of the general symptoms ensues.

Now if violent irritation can produce a violent disturbance of the chylipoietic viscera; it may be expected that a less degree of a similar cause, will produce a slighter effect of the same nature. These slighter degrees of derangement we observe in cancerous complaints which rarely fail to be accompanied with disorders

of the abdominal viscera. - We find the same state of the
chylipoietic viscera in the advanced stage of Lumbar abscess -
compound fracture - and all kinds of Local disease which
impair considerably, and continued irritation to the whole
system. But as it is the first indication of cure in all
diseases to remove the remote cause; so in these cases it
might be supposed that by removing the remote cause
of the derangement of these organs, we would cure the
disease; and that this would fall more properly under the
treatment of the primary affections named.

But in the first instance it would be impracticable
in many cases to remove the remote cause. And in the
second place their removal would not always ensure the
removal of their effects. As the state of irritation of the
Stomach; and its diseased secretion would most probably
continue from habit, after the causes first inducing them
had ceased to exist. So that in these cases their secondary
effects on the digestive organs will require the appropriate
remedies for Dyspepsia; which forms so strong a trait in
their character.

M^r. Abernethy found that these remedies not only
facilitates the cure of the primary affections; but with-
out which, they refused obstinately to yield to any
treatment. Since then local injuries can affect the chy-
lopoietic viscera only by producing irritation in the nervous
system. It follows that any cause which is capable of pro-
ducing this state in the nervous system; is also capable

of disordering the digestive organs. And that the disorder of these organs, whatever may be the cause in the first instance; when once established, may become a cause of irritation and disorder of the nervous system. So that whether we consider the disorders of the digestive organs as a cause or an effect; they equally claim our notice, and demand the prompt and skillful exhibition of their appropriate remedies.

Dr. Cullen has treated of dyspepsia as an idiopathic disease; The symptoms of which are, a want of appetite; squeamishness and sometimes vomiting; sudden and transient distentions of the Stomach; eructations; heart burn; pain in the region of the Stomach, and a bound belly.

But besides these symptoms there are others which as decidedly mark disorder in the Stomach; and assist in diagnosing it, whether it exists as an idiopathic or Symp-
tomatic affection. Such as an unnatural colour and force of the evacuations; which are generally deficient in quantity. The tongue is dry, whitish or furred at its back part. This symptom is most apparent in the morning.

Perhaps the state of the tongue is the best criterion of the state of the stomach; not only as it indicates disease generally, but also from the circumstance of its being a continuation of the surface of that organ. The patient breathes more by the ribs, and less by the diaphragm than in the healthy state. The urine is frequently turbid.

The Liver is likely to participate in the disorders of the

Stomach, and the biliary secretion is either diminished or vitiated. A very considerable objection may be made to considering the disorders of the function of the Liver, as a criterion of those of the Stomach and intestines; since the Liver is in some measure independent of these organs, and may be the subject of a disease confined to itself. In some cases also disorders of the alimentary canal may take place without disturbing the functions of the Liver.

Still however in general, disorders of the stomach and bowels affect the function of the Liver; and the state of the biliary secretion, affords a very useful evidence of the more or less general disorder of the chylopoietic visera. No material disorder can take place in one of the digestive organs, without disturbing the functions of the others. If the Stomach performs its office imperfectly, the function of the alimentary canal will soon participate in the disorder of the Stomach. Under these circumstances the secretion of bile will probably become irregular; since the Liver would have its share of the assimilating process increased, to correct or obviate the errors of the other chylopoietic visera.

In treating the subject of dyspepsia, it has been the practice to consider the Stomach alone as productive of the disease. But as the Liver is now known to be concerned in the function of nutrition; not only by furnishing an secretion, the cystic bile; but by pouring a highly assimilated

and nutritious fluid into the intestines - its influence on the nourishment of the system deserves important consideration.

But as the view of the subject involves the diseases and disorders of that organ; so numerous and important I shall only treat of that affection of the Stomach denominated by Dr. Cullen Dyspepsia; the symptoms of which have been enumerated.

Its causes have been considered under two heads. Under the first - Those which act directly and immediately upon the Stomach itself.

Under the second head have been arranged those causes which act upon the whole body, or particular parts of it; but in consequence of which, the stomach is chiefly or almost the only part affected.

Of the first class of causes are, the excessive use of ardent Spirits - Certain stimulating narcotics taken into the Stomach such as strong tea; Coffee; Tobacco; Opium; All Bitters and Aromatics; acid aliments; imperfect mastication; frequent aspiration; the excessive use of sugar; rapid ascent vegetable food; The sudden transition from animal to a vegetable diet; and vice versa; The rejection of the saliva; worms; schirrus; Frequent use of Emetics; The habitual use of Nitre.

Those causes which act on the whole body, or on particular parts or functions of it are, an indolent and sedentary life; Grief; Intemperate study or application to business; moist air; sailing; Pregnancy; Gallstones;

diseases and disorders of adjoining viscera; decayed teeth; general fever and great irritation from local injuries.

The remedies divide themselves into Palliatives and Radical. In proceeding to the cure all the remote and exciting causes should if practicable be removed or avoided.

Under the head of the palliative remedies may be ranked; such as remove from the Stomach such matter as gives rise by its presence to disagreeable symptoms; as a sense of weight in the Stomach; the eructation of imperfectly digested and improper aliment. To perform this indication mild Emetics may be used; which not only will relieve the Stomach from improper matter; but also improve its secretion. Another class of these remedies — is used to correct an acid in the Stomach; which is produced by the food not being under the digestive powers of the stomach, follows its natural law of acid fermentation. These are magnesia calcined oyster shells; Elixirs; alkalis; small doses of common salt; Lime water with milk; a solution of common salt in lime juice.

Stimulants have been exhibited a short time previous to a meal; to invite secretion to the stomach and excite its action — as a few grains of pepper — a small dose of opium; Five grains of Rheubarb taken an hour before dinner has been of much service, by gently stimulating the stomach; and expelling the residue of alimentary matter; it also increases the appetite. Colicamba may be used for this last purpose. But if the appetite is disproportioned to the powers of

digestion, sweet oil may be taken before meals to blunt its inordinate craving. Blisters to the region of the Stomach have been of use in promoting digestion; also moderate compression and friction on the stomach.

In proceeding to the Radical cure, the remedies should be regulated by the state of the system. In the commonest form of this disease there is often a species of chronic inflammation of the Stomach, which will require blood letting. But if the pulse should not authorize venesection, Emetics may be used. Purgers will be of use not only in moderating action, and relieving the excitement; but also in relieving the bowels. For if digestion is imperfectly performed in the Stomach; and the matter passes in this state into the intestines it will irritate them and keep up the primary affection. They will also preserve the bowels regular and prevent costiveness, which is so distressing and aggravating a symptom. Rheubarb is perhaps the best cathartic, for it not only palliates; but by giving tone to the Stomach and bowels performs a part of the radical cure.

While the excitement of the system is above par the Stomach is generally very irritable; and often to such a degree that the mildest stomachics are rejected. Here a vegetable diet of the mildest kind must be used. During this state of extreme irritability of the Stomach; and as it were discontent under any treatment, it has been recommended for the patient to fast; and receive nourishment by

nutritive injections thrown into the intestines. Under this treatment the stomach is said to have regained its power of retention; and to have "pouted itself into good humour."

If the pulse is soft and natural; if there exists no symptom of too much excitement - if there is no pain present, Then Tonics and Stimulents may be given in doses regulated by the state of the excitability; and continued if they do not produce too much action in the pulse and heat and pain in the stomach. A small degree of uneasiness in the stomach after having used tonics for some time; is not however a mark, that they should be altogether abstracted; but only that this organ is regaining its excitability, and that the stimulus should be gradually subducted. The tonics may be taken from the vegetable or mineral kingdoms: or they may be combined as Rub. Ferri with Gentian, Ginger, or Columbo.

The Bark is said to be of no use in this disease. It appears that this medicine requires considerable tone in the digestive organs, to become an active remedy in any disease; and of course an improper one in dyspepsia.

The use of a well regulated and proper diet is of vast importance in the treatment of this disease. The aliment should be solid and thoroughly cooked; all broths and teas are improper.

The drinks of dyspepsia should be very little of any kind; and never taken before a meal. For they dilute the gastric juice; and prevent the food from coming in contact with this necessary agent of digestion. But in persons

accustomed to the use of wine; Port, Madeira, or Portee may be used. For in these cases digestion will not go on well if the Stomach is deprived of a stimulus, to which it has long been accustomed. Uneasy sensations will be experienced, denoting a discontented state of this organ; and a want of the expected stimulus. It is on these accounts improper to restrain persons from the use of wine who have been in the habit of taking. A moderate quantity may be allowed after dinner. But strong fermented liquors must be injurious at any other period. It is wrong to stimulate the stomach, when it has no task to perform.

If the appetite is deficient. the Clin. Vit. or Huxham's tincture may be used. The patient should not be allowed to smell the food, before eating or while preparing. They should be surprised with new and unexpected dishes. They should have little placed before them at a time.

If the Stomach performs digestion with too much celerity, food of difficult digestion may be given.

Patients are apt in the morning after rising to reject their ^{food} by vomiting. In these cases they should take small quantities at a time while recumbent in bed.

They should also take food during the night; this will prevent that state of debility of the Stomach on which the rejection depends. They should feed often; the Stomach should neither be full or empty.

No individual remedy for dyspepsia should be

added those which tend to establish the health and vigour of the general system; on which the integrity of the functions of its parts so much depends. Such as gentle exercise in the open air; the cold bath; sea bathing; the invigorations of the passions and understanding. If all these remedies fail of effecting a cure; a salivation must be resorted to; particularly if the Liver and adjoining viscera are obstructed.

When that which is not to be the health of
you & the general interest of the country
is found to be a source of trouble. And as
the result in the end, the only result is
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are, a reduction in the number of the
half of the time and saving more in interest.

2 Cox

Virginia

Aug 10 1866

In this essay on dyspepsia, the Author has given a very judicious and view of the disease, & has done sufficient justice to the subject, to render it worthy of respectful notice. - It has been much the fashion to celebrate highly the efficacy of mineral waters in the cure of this & other diseases; and I am happy to find our Author not swayed in his belief by the reputation of these opinions. He thinks they have born a much greater character than they deserve from any medical properties they possess, and their seeming benefit, he more properly attributes to the change of Atmosphere & Company, & the exercise the patient is necessarily compelled to take. - Certain it is, that we have it in our power to form artificial waters infinitely more powerful than any which nature produces; but which are unattended with the same beneficial influence, merely from the absence of the above mentioned Causes of health.

Another circumstance which the Author has very judiciously enforced, in the cure of this disease, is a strict attention to the state of the Bowels; and his observations are not less proper to be attended to in other diseases, as well as in health, as a measure of prevention of disease. These observations are - *See on -*

In noticing this so fully, I would only observe, that a due attention to the recommendation, would certainly tend more to the benefit of Society, than half the Drugs in the Materia Medica. -